GOVERNMENT OF INDIA
RAILWAYS
LOK SABHA

UNSTARRED QUESTION NO:504
ANSWERED ON:21.11.2002
PROCUREMENT OF SLEEPER
PRABHUNATH SINGH

Will the Minister of RAILWAYS be pleased to state:

referring to the reply given to USQ No. 5693 dated May 2, 2002 regarding Procurement of Sleepers and pleased to state:

(a) whether the Ministry has prepared Action Taken Note on the various paragraphs;

(b) if so, the details thereof;

(c) whether the Railways had drawn up a programme to phase out completely the wooden sleepers;

(d) if so, the details thereof;

(e) the quantity of wooden sleepers are still spread below the railway tracks and time by which these are likely to be replaced with concrete sleepers;

(f) whether Khanna Committee on safety had recommended the manual checking of fish plates but the same has not yet been acted upon; and

(g) if so, the details of the steps taken to check the accidents due to removal of fish plates and rails and to strengthen the inspection of railway tracks?

Answer

MINISTER OF STATE IN THE MINISTRY OF RAILWAYS (SHRI BANDARU DATTATRAYA)

(a) : Yes, Sir.

(b) : Copy enclosed.

(c) : No, Sir. Though Indian Railways has completely eliminatedwooden sleepers from Main line track and is in the process of eliminating from standard layouts, yet it will continue to use them on girder bridges and non standard layouts due to technical considerations Thus wooden sleepers cannot be eliminated completely from the track.

(d) : Does not arise.

(e) : Presently no wooden sleepers exist on the main line track. Turnouts laid with wooden sleepers are being replaced with PSC turnouts at the approximate rate of 3000 sets per year. For other locations like non standard turnouts and girder bridges, it is not possible to use concrete sleepers due to technical reasons. Railways all over the world still use wooden sleepers at such special locations.

(f) : No, Sir. No such recommendations had beenmade by Khanna Committee. Hence question for implementation does not arise.

(g) : As per extant instructions of Ministry of Home, action to prevent sabotage to track and bridges, is required to be taken by State Governments. Railways only lodge FIR in such cases. Security patrolling in specified stretches, for a limited duration, is also introduced if specially requested by the State Government. However, as a precautionary measure, instructions have been issued to reduce the number of fish plated joints, wherever feasible and for burring of two fish bolts, one opn each rail, at joints located in the stretches considered vulnerable. Efforts are also being made to develop an anti-theft elastic rail clip and fish bolt fastening. The frequency anf level of Inspection of Engineering Officials is already specified and compliance is monitored.

Action taken note referred in reply to part (b) of Lok Sabha Unstarred Question No.504 to be answered on 21.11.2002
ACTION TAKEN NOTE

I (a) Ministry/Department : Ministry of Railways (Railway Board)

(b) Subject/title of the review/Paragraph : Extra expenditure due to delay in replacement of Wooden Sleeper turnouts

and on procurement of Concrete Sleeper Turnouts.

(c) Paragraph No. : 4.3.2

(d) Report No. and year : 9 of 2002 (Railways)

II Date of receipt of the Draft : 01.06.2001

(a) Paragraph/Review in the Ministry :

(b) Date of Ministry`s reply to P.P. : 28.03.2002

III Gist of Paragraph/Review : Extra expenditure on procurement of Wooden Sleeper turnouts due to delay in taking steps to replace them by Concrete Turnout sleepers which are more cost effective than Wooden Sleeper Turnouts.

IV (a) Do the Ministry agree with the facts and figures included in the Paragrapg? : Not in some areas.

(b) If not, please indicate the areas of disagreement and also attach documents in support : Indian Railways had been using WOOden sleeper turnouts for decades. Subsequently for non track circuited areas, Indian Railways had been using WOOden sleeper turnouts for decades. Subsequently for non track circuited areas, Steel Trough (ST) Sleeper layouts were developed and found successful, but for track circuited area, no alternative to wooden layout was available till about 1988. In 1989, RDSO developed a layout with PSC Sleepers, which was found satisfactory after field trials of first 20 sets. The study conducted by RDSO also revealed that the concrete layout was not only technically superior but the life cycle cost was also found lower as compared to wooden layout. Therefore, a principle decision was taken to switch over to concrete sleeper layouts from wooden sleeper layouts.

At that time, there were around 65,400 sets of wooden sleeper turnouts in track. The design of concrete sleeper layouts was though finalized, but infrastructure for manufacturing PSC turnout sets; inftastructufe for handling transportation and laying these bulky turnout sleepers in track; and plant machinery and equipment for maintenance of track laid with these layouts was totally non-existent. Development of such infrasttucmre was a time consuming process, which required creation of adequate manufacturing facilities, procurement of necessmy machines and equipments for handling transportation and maintenance of these tUrnout sleepers in track and training of staff for acquiring necessary eXpertise in dealing with concrete sleeper layouts in laying, handling and maintenance.

Necessary action to develop the infrastructure required for the PSC turnout sleepers was taken by the Raihvay administration without any delay within the framework of existing rules and regulations. Till such time, these facilities were developed, use of wooden sleepers was unavoidable to keep the track in safe conditions for movement off passengers and freight.

v (a) Main Audit conclusion :

1 Deficiency in the existing system including system of internal control : Nil

2 Failure to follow the system including system of internal control : Nil

3 Failure of individuals : Nil

4 Amount of loss/short assesment/short levy : 44.04 Crores

(b) Do the Ministry agree with the Audit conclusion? If not, please indicate specific areas of disagreement and also attach copies of relevant documents, where necessary. : Replacement of wooden sleeper turnouts with PSC Sleeper turnouts is not a switch on switch off action. As explained in para IV (B) above, Railway had been using wooden sleepers for decades. A suitable alternative was developed and found suitable in PSC sleepers but development of infrastructure for manufacturing, handling and transportation; maintenance; training of manpower for adopting the PSC Sleeper layouts was titme consuming process. The necessary inftastructure was developed within the framework of rules and regulations by the Railway Administration without any delay. Till such time, the necessary inftastructure was developed, use of wooden sleepers was unavoidable. The loss calculated by Audit is therefore hypothetical.

VI Remedial actions taken :

(i) Improvement in system and procedures including sinternal control : N.A.

(ii) Recovery of overpayment pointed out by Audit : N.A.

(iii) Recovery of under assessment, short levy or other dues : N.A.

(iv) Write off of amount of losses/wasteful : N.A.

(v) Modifications in the scheme, including financing pattern : N.A.

(vi) Review of similar case/complete scheme/ project in the light of findings of sample check by Audit : N.A.

This was referred to Audit who, vide their U.O.I. No. 181-RAII/7-388/98 dated 01-10-2002, have desired that following may be appended at the end of Action Taken Note:-

AUDIT OBSERVATION:

1) In view of the policy of Indian forest conservation, the need for replacing the wooden sleeper turnouts with concrete sleeper turnouts would have arisen sooner or later. Ministry of Railways may kindly state in the ATN whether this aspect was also considered while f`ormulating the above mentioned policy/plan. If not, the reasons why this inevitable exercise was not done may please be explained.

2) Audit para and the connected record there~with points out that concrete sleeper turnouts were superior to wooden sleeper turnouts in regard to higher life span, lower maintenance cost, etc. Ministry of Railways may kindly elaborate in the ATN as to :

i) Why the matter of development of source for PSC sleeper turnouts was left to Zonal Railway when thebenefits/savings were anticipated from the use of PSC sleeper turnouts? The quantity ordered by individual Railwayswas too small to evoke a good response.

ii) Why a centrally driven initiative was not taken to develop the source for PSC sleeper turnouts in view ofclear advantages of PSC turnout sleepers?

iii) Why the expertise of RDSO was not utilised to resolve the teething problems faced by PSC sleeper turnoutsmanufacturers as Zonal Railway level?

3) Railway`s record reveal that 75 percent of the assessed capacity of PSC sleeper man~facturers was beingutilised by Railways, MinistTY of Railways may please indicate whether this unutilised capacity could have beendiverted towards manufacture of PSC sleeper turnouts.

If yes, whether any efforts were made by them to negotiate with PSC sleeper manuÂ£acturers to divert 25percent (unutilised) of the assessed capacity towards the manufacture of PSC sleeper turnouts.

4) Audit para reveals that Ministry of Railways issued limited tender in August 1993 for procurement of concretesleeper turnouts. Ministry of Railways may kindly elaborate as to how issuing of limited tenders instead of opentenders(in view of shortage) was a correct decision.

Ministry of Railways` comments on the above Audit observations:

1) In view of the policy of the Indian Forest Conservation, Indian Railways had taken a timely action to reduceits dependence on wooden sleepers. As a result of which the requirement of wooden sleepers on Indian Railways reduced from 3.5 lakh cum in 1960 to 54000 cum in 1993-94. The present day level requirement of wooden sleepers for use on girder bridges and non-standard lay-outs for which no alternative to wooden sleepers has been developed as yet by any of the world Railways, is only 20000 cum per annum. This is the absolute minimum requirement and Hon`ble Supreme Court has permitted IR to import this quantlty of wooden sleepers. Thus, the Railways took timely action in line with the policy of Indian Forest Conbervation but the main thrust in the beginning was on replacing Main Line sleepers by concrete sieepers which constituted a major chunk of wooden sleepers and when the use of concrete sleepers for Main Line Sleepers had stabilized, Railways undertook development of special sleepers like Turnouts, Switch Expansion Joints (SEJs), Derailing Switches, etc.

2) (i) & ii) - There is no denying the.fact that PSC sleeper Turnout is superior to wooden sleeper Turnout in regardto the higher life span, lower maintenance cost and better stability. Considering these benefits of concrete sleeper Turnouts, Railways took action to replace all tbe wooden sleeper turnouts by concrete sleeper Turnouts in a planned manner. But as the evolution of technology is gradual, it took some time to develop and introduce the concrete sleeper Turnouts in a big way. The main reasons for slow progress in introdustion of concrete sleepers for Turnouts has been; absence of mass production technology for Turnout sleepers and lack of handling, transport and relaying facilities, because the Turnout sleepers are very heavy and extra long as compared to the Main Line sleepers. Till such time mechanical equipments for handling and laying were developed, laying of turnout sleepers was started manually which was a very cumbersome and time consuming job. This is the main reason that initially Zonal Railways were asked to procure Turnout sleepers in small quantities on experimental basis. Later on, when the manufacture of concrete sleepers for Turnouts got stabilized and design also got standardized by RDSO, Railway Board lost no timein inviting centralized tender for procurement of Turnout sleepers on mass scale. Railway Board, finalized 2 tenders as early as 1990 and 1993 for 10000 sets of PSC Turnout sleepers and placed orders on 7 firms across the country.

2. iii) - RDSO being a torch-bearer in the development of concrete sleepers for Main Lines as early as Turnouts, developed the initial design of Turnout sleepers. Thereafter, RDSO studied and analysed the teething problems thatwere being, faced by the manufacturers and standardized the design.

3. Manufacture of PSC sleepers for Turnouts is completely a different activity altogether than manufacture of MainLine sleepers. Firms manufacturirg Main Line sleepers cannot undertake manufacture of Turnout sleepers by utilisingits spare capacity. For manufacture of Turnout sleeper, the firm has to develop a different set of facilities like moulds, benches and handling facilities and also a separate laying yard and separate approval of RDSO. In case ofTurnout sleepers all the 96 sleepers are manufactured to different drawing requiring manufacture of different sets of moulds individual sleepers unlike main line sleepers where one set of moulds can suffice. Due to this reason, the existing manufacturers could not be asked to undertake manufacture of Turnout sleepers without

creating additional facilities.

4. In the year 1993, limited tenders were invited for manufacture of Turnout sleepers because the requirement of Turnout sleepers on Indian Railways was limited due to constraint of handling and laying equipments as explained above. Even the present day requirement of Turnout sleepers is only about 3000 sets per annum. It was also preferred to invite limited tenders only from established suppliers who had gained experience in manufacture of line sleepers. This is because establishing a sleeper manufacturing unit has a long gestation period and a new comer would take more time than the experienced firms to set up a new plant and the Railways` did not want to lose any time on account of long gestation period to set up a new plant. This was also one of the reasons to invite limited tenders.

Further Audit observations on Ministry of Railways comments as above.

The Railway Board assessed (1991) 65,400 sets of wooden sleeper turnouts required to be replaced by concrete sleeperturnouts in a phased manner in the next 14 years i.e. by 2005, but only 12148 sets could be procured till January 2001. It is clearly evident that due to slow progress, Railways were far behind the target as set out in 1991 and, this necessitated procurement of wooden sleeper turnouts at higher rates.`

(K.Su bramanian)
Director Finance (BC)
M/o Railways` case No. 2002-BC-AP-4.3.2/00-01.